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SENATE

{ REPORT  
No. 1052

## PRODUCTION OF HELIUM

FEBRUARY 3 (calendar day, FEBRUARY 9), 1925.—Ordered to be printed

Mr. WADSWORTH, from the Committee on Military Affairs, submitted the following

### REPORT

[To accompany H. R. 5722]

The Committee on Military Affairs, to which was referred the bill (H. R. 5722) authorizing conservation, production, and exploitation of helium gas, a mineral resource pertaining to the national defense, and to the development of commercial aeronautics, and for other purposes, has had it under consideration and recommends that with the following amendment the bill pass:

Strike out all after the enacting clause and insert in lieu thereof the following:

That for the purpose of producing helium with which to supply the needs of the Army and Navy and other branches of the Federal Government, the Secretary of the Interior is hereby authorized to acquire land or interest in land by purchase, lease, or condemnation, where necessary, when helium can not be purchased from private parties at less cost, to explore for, procure, or conserve helium-bearing gas; to drill or otherwise test such lands; and to construct plants, pipe lines, facilities, and accessories for the production, storage, and repurification of helium: *Provided*, That any known or probable helium gas-bearing lands on the public domain not covered at the time by leases or permits under the act of February 25, 1920, entitled "An act to promote the mining of coal, phosphate, oil, oil shale, gas, and sodium on the public domain," may be reserved for the purposes of this act, and that the United States reserves the ownership and the right to extract, under such rules and regulations as shall be prescribed by the Secretary of the Interior, helium from all gas produced from lands so permitted, leased, or otherwise granted for development.

SEC. 2. That the Bureau of Mines, acting under the direction of the Secretary of the Interior, is authorized to maintain and operate helium production and repurification plants, together with facilities and accessories thereto; to store and care for helium; to conduct exploration for and production of helium on and from the lands acquired or set aside under this act; to conduct experimentation and research for the purpose of discovering helium supplies and improving processes and methods of helium production, repurification, storage, and utilization.

SEC. 3. That immediately upon the passage of this act all existing Government plants operated by the Government or under lease or contract with it, for the production of helium shall be transferred to the jurisdiction of the Bureau of Mines: *Provided*, That the Army and Navy and other branches of the Federal

service requiring helium may requisition it from the said bureau and make payment therefor by transfer of funds on the books of the Treasury from any applicable appropriation at actual cost of said helium to the United States, including all expenses connected therewith: *Provided further*, That any surplus helium produced may, until needed for Government use, be leased to American citizens or American corporations under regulations approved by the President: *And provided further*, That all moneys received from the sale or leasing of helium shall be credited to a helium production account and shall be and remain available for the purposes of this section; and that any gas belonging to the United States after the extraction of helium, or other by-product not needed for Government use shall be sold and the proceeds of such sales shall be deposited in the Treasury to the credit of miscellaneous receipts.

SEC. 4. That hereafter no helium gas shall be exported from the United States, or from its possessions, until after application for such exportation has been made to the Secretary of the Interior and permission for said exportation has been obtained from the President of the United States, on the joint recommendation of the Secretary of War, the Secretary of the Navy, and the Secretary of the Interior. That any person violating any of the provisions of this section shall be guilty of a misdemeanor and shall be punished by a fine of not more than \$5,000 or by imprisonment of not more than one year, or by both such fine and imprisonment, and the Federal courts of the United States are hereby granted jurisdiction to try and determine all questions arising under this section.

SEC. 5. The Army and Navy may each designate an officer to cooperate with the Department of the Interior in carrying out the purposes of this act, and shall have complete right of access to plants, data, and accounts.

The bill as reported by your committee is in the form in which it was originally reported by the Committee on Military Affairs of the House of Representatives. The amendments adopted by the House of Representatives changed materially the form of the bill and its apparent purpose. The purpose of the bill is described in House Report No. 627 of the Sixty-eighth Congress, from which the following is quoted:

This proposed legislation is designed to secure for Government use, especially for the Army and Navy, a supply, both for current use and for reserve, of helium, the noninflammable balloon gas found in various parts of the United States. The value of this gas in aviation is now beyond dispute, the successful flights of the *Shenandoah* and other ships of the Army and Navy having demonstrated beyond doubt its unique value. With slightly less lifting power than hydrogen, it has the important qualities of being fireproof and of such a nature that after having been contaminated in use it can be repurified and rejuvenated. As a practical matter hydrogen, when contaminated, is thrown away, the danger involved in repurifying it being too great to warrant the work.

Helium has been studied and experimented with by this Government since 1917. The experimental stage has now been largely traversed. There are known and adequate supplies, and processes of production have already been so perfected that the cost is but a small fraction of that obtaining before this Government took up the work. The Army, the Navy, and the Interior Department have cooperated in this work under existing law. The present legislation, prepared in conference between these departments and having the approval of all three, proposes to continue this cooperation but to simplify the method by centralizing in the Interior Department, and specifically in the Bureau of Mines, responsibility for production of such quantities of helium as the Army, Navy, and other branches of the Government shall require and Congress may from year to year appropriate for. A capital sum, to be fixed by the Congress acting through its regular Appropriations Committee, is to be set aside for the use of the Interior Department in procuring and preparing current supplies and such war reserve as the appropriations made will permit.

It is estimated that an appropriation of \$5,000,000 would be sufficient for the purposes contemplated by this bill, \$4,000,000 of this sum to cover requirements for leases and \$1,000,000 for pipe lines, drilling, and miscellaneous items.

The Secretary of the Interior is authorized, in accordance with the policy expressed in existing law, to reserve such helium as may be found upon the public lands and to acquire such private lands, leases, or gas supplies as may be necessary to the purposes of the act.

Helium is, so far as present knowledge extends, practically a monopoly of the United States, and its great value for war use is such that its export, except under the permission of the President, acting on the advice of the three departments concerned, is forbidden.

The legislation has received the careful consideration of this committee, which has had before it a similar bill introduced in the last session of Congress, together with a record of hearings then held before the Committee on the Public Lands, which reported to the House that it lacked jurisdiction, the matter being one for the Committee on Military Affairs. The bill here reported is a shorter and simplified form of that before Congress at its last session.

Appended are letters from the departments concerned, approving of this legislation.

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DEPARTMENT OF THE INTERIOR,  
Washington, January 15, 1924.

HON. JULIUS KAHN,  
*Chairman Committee on Military Affairs,  
House of Representatives.*

MY DEAR MR. KAHN: I noted with pleasure some days since that you had reintroduced, as H. R. 756, the helium bill that was before Congress last year, and I sincerely trust you will push it to enactment. I am, however, sending you a somewhat shorter and simpler text developed this year by the officers of the three departments and which, as you will see by the attached letters, has been approved by the Secretaries of War and Navy. This form was worked out in the course of the summer after conference with members of the Committee on Appropriations, and is designed to permit keeping war and civil expenses separate in making annual appropriations. Under its terms Interior would have a capital account for conserving and producing helium and the War, Navy, and other departments will be permitted to purchase at cost from year to year such amounts as Congress may appropriate for.

I am directing the Bureau of Mines to furnish you with any further information or assistance you may desire in consideration of this bill.

Very truly yours,

HUBERT WORK, *Secretary.*

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NAVY DEPARTMENT,  
Washington, December 27, 1923.

THE SECRETARY OF THE INTERIOR,  
*Department of the Interior, Washington, D. C.*

SIR: Replying further to your letter of November 19, 1923, inclosing draft of a bill which you propose to submit to Congress during the present session, relative to helium matters, and requesting an expression of opinion thereon by this department, I have the honor to advise you that the proposed draft of the bill forwarded with your letter is believed to adequately cover the purpose intended, namely, the conservation and production of helium gas. I therefore consider it advisable that this proposed bill be brought to the attention of both the President and Congress at an early date.

During discussions of this proposed legislation it was agreed by representatives of this department and the Departments of War and Interior that even though the direct responsibility for helium production is transferred to the Interior Department, the War and Navy Departments should be kept in close contact with production activities. It is my understanding that the joint Army and Navy helium board expressed the opinion that representatives of the War and Navy Departments should be detailed to serve at all helium production plants to assist in establishing such operating policies and practices as would be most advantageous to the Military and Naval Establishments. Such procedure appears very desirable.

With the understanding that provision for this procedure will be made in case this legislation is enacted, or other steps are taken to attain the same end, this proposed bill has the approval of the Navy Department.

Respectfully,

EDWIN DENBY, *Secretary of the Navy.*



WAR DEPARTMENT,  
Washington, December 20, 1923.

THE SECRETARY OF THE INTERIOR.

MY DEAR MR. SECRETARY: As H. R. 11549 (67th Cong., 2d sess.), a measure providing for the conservation, production, and exploitation of helium gas under the general authority of the Secretary of the Interior, failed of passage in the Sixty-seventh Congress, it is requested, in view of the importance of the measure to the national defense, that the Department of the Interior cause the attached bill to be introduced in the Sixty-eighth Congress and undertake to secure its enactment. H. R. 11549 originated with the War, Navy, and Interior Departments and was approved by the Secretaries of these departments and by the President.

The attached bill, a shorter form of the original H. R. 11549, being the work of the joint helium board, is approved by me, and the War Department stands ready to cooperate with the Department of the Interior in obtaining favorable committee report and action thereon by Congress as soon as practicable.

The delay in replying to your letter of November 19 is regretted, but was due to the absence from the city of the Army member of the helium board.

Sincerely yours,

J. W. HINES, *Acting Secretary of War.*

Notwithstanding the fact that the bill as reported by the House Military Committee was drafted after careful study by a joint board composed of members representing the War, Navy, and Interior Departments, the House amended the bill so as to place the control of helium production and repurification solely in charge of the Secretary of the Navy, thus making the Army entirely dependent on the Navy for any supplies of helium it might need. On this subject there is appended a letter from the Secretary of War dated February 4, 1925, which expresses his attitude with respect to the bill. Your committee urges adoption of the bill in the form reported, believing it to be desirable in the interest of the development of helium production to meet the needs of the Army and Navy.

FEBRUARY 4, 1925.

MY DEAR SENATOR WADSWORTH: Receipt is acknowledged of your letter of January 27 inclosing copy of bill H. R. 5722. You are advised that in accordance with an agreement entered into by the Secretary of the Interior, Secretary of the Navy, and Secretary of War last year bills were introduced in both Houses to provide that the helium which was available in the United States would be conserved and produced as our national defense scheme demanded. The idea at that time was that the best interests of the Government would be subserved if all activities in connection therewith were placed under one department instead of being handled by three departments as was being done at that time and continued to the present.

The Senate bill (S. 2166) and the House bill (H. R. 5722) before the latter was amended on January 22, 1925, provided the necessary additional powers and further provided for that centralization of exploration, conservation, and production of helium contemplated in the original agreement between the three interested departments. (See attached copy of Report No. 627, on H. R. 5722.) The House bill as amended changes this situation materially in that it provides for a dual control of helium affairs by the Department of the Interior and the Navy Department, but entirely excludes the War Department, except as a purchaser of helium produced. The War Department can not approve the House bill in its amended form because it destroys in a large measure the efficiency and economy which would result if all helium affairs were concentrated and under the control of one department, the Department of the Interior.

Helium exists in paying quantities in the natural gases of gas wells distributed throughout Texas, Oklahoma, Kansas, and Utah. It will thus be seen that any production plant for the extraction of helium from these gases must be located in the interior of the country. Helium can only be economically extracted in the

vicinity of the wells, and for that reason the control of the production plant is more logically a function of the Department of the Interior, or even of the War Department, than it is a Navy function.

Inasmuch as the exploration of helium and the improving of processes and methods of helium production are, under all forms of the various bills, made a function of the Secretary of the Interior, it is obviously in the interest of economy to proceed one step further and charge that department with the actual production under the processes which are improved as a result of their experiments. The organization adopted should certainly provide for easy and direct interchange of ideas between those trying to improve production and those charged with actual producing of helium.

Specifically, then, the War Department considers that the amendment made to H. R. 5722 on January 22, 1925, destroys a large part of the vital elements of the carefully thought out and thoroughly coordinated joint departmental recommendations in connection with helium affairs. The War Department therefore recommends that this bill be further amended to restore it to its original content and purpose.

Yours very truly,

JOHN W. WEEKS, *Secretary of War.*

Hon. J. W. WADSWORTH, Jr.,  
*United States Senate, Washington, D. C.*

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